

future. Meantime all ornithologists owe Dr. Dwight a debt of gratitude for one of the most important contributions to recent ornithological literature.—W. S.

Grinnell's '*Birds of the Kotzebue Sound Region*.'<sup>1</sup>—This is the first brochure of a new series of publications, the '*Pacific Coast Avifauna*,' by the Cooper Ornithological Club of California.

The region with which Mr. Grinnell deals "includes the district coastwise between Cape Prince of Wales and Hope Point, and thence eastward to the headwaters of the streams flowing into Kotzebue Sound," and consists of the "valleys of the Noatak, Kowak, Selawik and Buckland Rivers, as well as several smaller streams, all of which empty into Kotzebue Sound." Mr. Grinnell, in a schooner yacht, reached the vicinity of Cape Blossom July 9, 1898, with a company of prospectors "to explore the Kowak Valley for gold or any other valuable resource this little-known country might afford." They were provided with lumber and machinery for the construction of a stern-wheel steamer for use on the larger streams of the region. While the expedition proved unsuccessful in its search for gold, it afforded Mr. Grinnell excellent opportunity for ornithological work during the year or more spent in this interesting region, the results of which are here detailed.

After describing the character of the country visited, the author gives an extensively annotated list of the birds observed, numbering 113 species, which is followed by a bibliography of Kotzebue Sound ornithology, and a '*Checklist of the Birds of the Kotzebue Sound Region*,' numbering 150 species, based on the authorities cited in the bibliography, supplemented by his own observations. A map of the region shows the localities visited.

Mr. Grinnell's paper is thus a most valuable contribution to Alaskan ornithology. His notes on many of the birds met with are quite extended, sometimes occupying several pages, and greatly increase our knowledge of their breeding habits and seasons of arrival and departure, and there are also important technical notes. His accounts of the two species of Ptarmigan, the Willow Ptarmigan and the Rock Ptarmigan, are especially full and interesting, and include valuable notes on the moulting of these species, and the use of the black ocular stripe in the Rock Ptarmigan. He says: "The natives say this black is so the Rock Ptarmigan, which live on the mountains where the snow covers the ground till midsummer, will not be blinded by the intense glare. The natives themselves, in the spring before going out on a days hunt, thoroughly blacken the region around their eyes and across the nose, with soot, to prevent snow-blind-

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<sup>1</sup> *Birds of the Kotzebue Sound Region, Alaska*. By Joseph Grinnell. = *Pacific Coast Avifauna* No. 1, Cooper Ornithological Club of California, Santa Clara, Cal., Nov. 14, 1900. Roy. 8vo, pp. 1-80, and map.

ness. This is certainly an interesting suggestion, for on May 28, at the snow line on the Jade Mountains, as before stated, the males were still in white plumage, except the useful transocular black."

In speaking of the Willow Ptarmigan, he says that late in the fall of 1898, before any snow had fallen, he found "these white birds very conspicuous wherever they were." They were also then very shy, but later, after the snow came, "would allow of a much closer approach, but were correspondingly difficult to discover." When the sky was overcast with a dense haze, he says, obscuring the direct rays of the sun, but with an intense even light, the Ptarmigan "were extremely hard to distinguish against the blank whiteness of the landscape. Only some movement of the black bill or eye could betray their presence, and often I have unknowingly approached the birds on the snow within a few yards. . . . But on a clear day, when the sun shines unobstructedly, even white objects are brought out in relief by their dark shadows. The Ptarmigan are then discernible for several hundred yards."

Speaking of the moult of this species he says: "The male Willow Ptarmigan thus undergoes at least three distinct moults during the year, though but one of these, that in the fall, is complete,"—a pleasing confirmation of Dr. Dwight's recent conclusion from a study of museum specimens (Auk, XVII, p. 163). Notwithstanding Mr. Grinnell's study of these birds in the field, from fresh specimens, throughout the year, it ought to be a suggestive fact to those who believe that Ptarmigan change color without moult that Mr. Grinnell makes no reference to such a change, but ascribes the seasonal changes of color to moult, and has the hardihood to point out just how they take place.

Mr. Grinnell considers the Alaskan Spruce Partridge as inseparable from the Labrador form (*Canachites canadensis labradorius* Bangs). The Alaskan form of the Northern Shrike is here separated as a new subspecies, under the name *Lanius borealis invictus*.

The Cooper Ornithological Club is to be congratulated upon having secured so interesting and valuable a paper as Mr. Grinnell's 'Birds of the Kotzebue Sound Region' as their opening article for their new 'Pacific Coast Avifauna' series.—J. A. A.

'Sharpe's Hand List of the Genera and Species of Birds,' Vol. II.—In 'The Auk' for January, 1900 (pp. 79-81), we had the pleasure of calling attention to the first volume of this indispensable work. We then stated so fully the character of the work that we have now merely to chronicle the appearance of Volume II<sup>1</sup> and briefly state its scope. The first volume included the orders I-XXVII of Dr. Sharpe's classification, or all the members of the class, living and extinct, from the Saururæ to the end of the Strigiformes. The present volume records the Psittaci

<sup>1</sup> Volume II, London, 1900. 8vo, pp. i-xxv+1-312.